



## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

#### Government-Owned Inventions; Availability for Licensing

**AGENCY:** National Institutes of Health, HHS.

**ACTION:** Notice.

**SUMMARY:** The inventions listed below are owned by an agency of the U.S. Government and are available for licensing to achieve expeditious commercialization of results of federally-funded research and development.

**FOR FURTHER INFORMATION CONTACT:** Licensing information may be obtained by communicating with Betty B. Tong, Ph.D., National Institute of Diabetes and Digestive and Kidney Diseases, Technology Advancement Office, 12A South Drive Suite 3011, Bethesda, MD 20892; telephone: 301-451-7836; email: [tongb@mail.nih.gov](mailto:tongb@mail.nih.gov). A signed Confidential Disclosure Agreement may be required to receive any unpublished information.

**SUPPLEMENTARY INFORMATION:** Technology description follows.

#### **P2Y<sub>14</sub> Receptor Antagonists Containing A Biaryl Core**

The technology discloses composition of compounds that fully antagonize the human P2Y<sub>14</sub> receptor, with moderate affinity with insignificant antagonism of other P2Y receptors. Therefore, they are highly selective P2Y<sub>14</sub> receptor antagonists. Even though

there is no P2Y<sub>14</sub> receptor modulators in clinical use currently, selective P2Y<sub>14</sub> receptor antagonists are sought as potential therapeutic treatments for asthma, cystic fibrosis, inflammation and possibly diabetes and neurodegeneration.

This technology is available for licensing for commercial development in accordance with 35 U.S.C. § 209 and 37 CFR Part 404.

**Potential Commercial Applications:**

Development of P2Y<sub>14</sub> receptor antagonist for treatment of disorders, such as:

- Inflammation
- diabetes
- cystic fibrosis
- asthma
- neurodegeneration

**Development Stage:**

- Early stage

**Inventors:** Kenneth A. Jacobson (NIDDK), Jinha Yu (NIDDK), Antonella Ciancetta (NIDDK), Zhiwei Wen (NIDDK), Young-Hwan Jung (NIDDK)

**Publications:** Yu J, Ciancetta A, Dudas S, *et al*, Structure-guided modification of heterocyclic antagonists of the P2Y<sub>14</sub> receptor. J. Med. Chem., 2018, 61: 4860–4882, Jung YH, Yu J, Wen Z, *et al*, Exploration of alternative scaffolds for P2Y<sub>14</sub> receptor antagonists containing a biaryl core. J. Med. Chem., 2020, 63:9563–9589.

**Intellectual Property:** HHS Reference No. E-028-2018-0/1, US Provisional Patent Application 62/628,699 filed 09 Feb 2018, International Patent Application PCT/US2019/17422, filed 11 Feb 2019

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